

REMARKS

By this Amendment, claims 15, 22-24 and 26 are amended, and claims 27, 28, 30, 32-38 and 40 are canceled. Accordingly, claims 15, 17 and 19-26 are pending in this application. No new matter is added. Reconsideration of the application is respectfully requested.

I. Information Disclosure Statement

An Information Disclosure Statement with Form PTO-1449 was filed in the above-captioned patent application on July 16, 2004. Applicant has not yet received from the Examiner a copy of the Form PTO-1449 initialed to acknowledge the fact that the Examiner has considered the disclosed information. The Examiner is requested to initial and return to the undersigned a copy of the Form PTO-1449. For the convenience of the Examiner, a copy of that form is attached. Applicant respectfully requests that the Examiner consider and return the original Form PTO-1449 with the next Office Action.

II. Claim Objection

The Office Action objects to claim 40 because of informalities. This objection is moot in view of the cancellation of claim 40. Accordingly, withdrawal of the objection to claim 40 is respectfully requested.

III. Rejection Under 35 U.S.C. §103(a)

A. Mizutani in view of Wakimoto

The Office Action rejects claims 15, 17, 19-21, 26-28, 30, 32-34 and 40 under 35 U.S.C. §103(a) over U.S. Patent No. 6,326,726 to Mizutani et al. ("Mizutani") in view of U.S. Patent No. 5,739,635 to Wakimoto ("Wakimoto"). Applicant respectfully traverses the rejection.

Mizutani does not teach or suggest an electroluminescent device including "each of the pixels having at least a TFT device," as recited in claim 15.

The Office Action asserts that Mizutani teaches an electroluminescent device including a bank 3 defining a pixel, an anode 18, a light-emitting layer 4 and a cathode 5. See Fig. 7. Notwithstanding these assertions, Mizutani does not teach or suggest a TFT device in each pixel, as set forth in claim 15.

Mizutani teaches, in Fig. 7, an organic electroluminescent device including separation walls 3, stripes of anodes 18, an organic electroluminescent layer 4, and stripes of cathodes 5. See Fig. 7. Specifically, Mizutani teaches that the anodes 18 are formed as stripes by a photolithography technique and an etching process, and the cathodes 5 are formed as striped lines over the organic electroluminescent layer 4 by the use of a shadow mask. See col. 14, lines 48-53, and col. 15, lines 7-11.

For example, Figs. 2, 4 and 5 show various embodiments of a shadow mask 11, 11a. See col. 10, lines 28-29. As shown in Fig. 2, a shadow mask is provided to form stripes of the cathodes 5 over the organic electroluminescent layer 4. See col. 7, lines 50-56. Since the cathodes 5 are not continuously formed to cover the plurality of pixels, only some of pixels of Mizutani include a TFT device. Although Mizutani teaches that the cathode 5 is provided above an organic electroluminescent layer 4 in Fig. 7, Fig. 7 merely shows a fragmentary cross-section of the organic electroluminescent display device, i.e., a horizontal cross-section of Fig. 2 at the intersection of the cathode 5 and the anodes 2, 18. See col. 4, lines 56-60. As a result, the cathodes 5 are formed over only certain portions of the anodes 2, 18, e.g., certain pixels. See Fig. 2. Therefore, the organic electroluminescent device of Mizutani is a passive matrix device, and thus, the cathodes 5 are not continuously formed to cover the plurality of pixels. See Fig. 2. Accordingly, Mizutani does not teach or suggest a TFT device in each pixel.

In the electroluminescent device of claim 15, a cathode 58 is formed over substantially the entire surface of a substrate 51. See Fig. 6, and application, page 12, lines 7-10. Thus,

the cathode is continuously formed so as to cover the plurality of pixels. As a result, each pixel includes a TFT device. See Fig. 6, and application, page 12, line 17-page 13, line 1. Since the cathodes 5 of Mizutani are not formed over the entire surface of the substrate having the plurality of pixels, each of the pixels of Mizutani cannot reasonably be considered to include a TFT device as set forth in claim 15.

The Office Action admits that Mizutani does not teach or suggest a thin-film layer provided above the light-emitting layer and under the cathode continuously formed so as to cover a plurality of pixels. However, the Office Action asserts that Wakimoto remedies the deficiency of Mizutani. Specifically, the Office Action asserts that Wakimoto teaches an electroluminescent device including a thin-film layer 6b disposed between a light emitting layer 3 and a cathode 1. However, Wakimoto does not remedy the deficiencies of Mizutani.

Wakimoto teaches an organic electroluminescent device including an electron-injecting layer 6b disposed between an emitting layer 3 and a metal cathode 1. See Fig. 3. Although Wakimoto teaches the electron-injecting layer 6b, Wakimoto does not teach or suggest that the metal cathode 1 is continuously formed so as to cover a plurality of pixels. Thus, Wakimoto, like Mizutani, does not teach or suggest each of the pixels having a TFT device. Accordingly, Wakimoto and Mizutani, alone or in combination, does not teach or suggest the electroluminescent device of claim 15.

Therefore, claim 15 would not have been rendered obvious by Mizutani in view of Wakimoto. Claims 17, 19-21 and 26 depend from claim 15, and thus also would not have been rendered obvious by Mizutani in view of Wakimoto. The rejection is moot with respect to canceled claims 27, 28, 30, 32, 34 and 40. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Mizutani in view of Wakimoto, and further in view of Roitman

The Office Action rejects claims 22, 23, 25, 35, 36 and 38 under 35 U.S.C. §103(a) over Mizutani in view of Wakimoto, and further in view of U.S. Patent No. 6,111,356 to Roitman et al. ("Roitman"). Applicant respectfully traverses the rejection.

As discussed above, neither Mizutani nor Wakimoto, alone or in combination, teaches or suggests an electroluminescent device including "each of the pixels having at least a TFT device," as recited in claim 15. Roitman does not remedy the deficiencies of Mizutani and Wakimoto.

Roitman is directed to an organic light emitting device including a cathode material 31 deposited through tapered photoresist layers 30 to produce stripes of cathodes 32. See Figs. 4 and 5, and col. 5, lines 63-67. Roitman does not teach or suggest the cathodes 32 being continuously formed so as to cover a plurality of pixels, and thus, cannot teach or suggest each pixel including a TFT device. For at least these reasons, Roitman, like Mizutani and Wakimoto, does not teach or suggest each pixel having a TFT device as set forth in claim 15.

Claims 22, 23 and 25 depend from claim 15, and thus would not have been rendered obvious by Mizutani, in view of Wakimoto, and further in view of Roitman. The rejection is moot with respect to canceled claims 35, 36 and 38. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Mizutani in view of Wakimoto, and further in view of JP 10-036487

The Office Action rejects claims 24 and 37 under 35 U.S.C. §103(a) over Mizutani in view of Wakimoto, and further in view of JP 10-036487. Applicant respectfully traverses the rejection.

As discussed above, neither Mizutani nor Wakimoto, alone or in combination, teaches or suggests an electroluminescent device including "each of the pixels having at least a TFT

device," as recited in claim 15. JP 10-036487 does not remedy the deficiencies of Mizutani and Wakimoto.

JP 10-036487 is directed to a fluorine polymer used at a luminescent material of an EL element. See Abstract. JP 10-036487 does not teach or suggest the formation of either pixels or cathodes. For at least these reasons, JP 10-036487, like Mizutani and Wakimoto, does not teach or suggest an electroluminescent device including each pixel having a TFT device as set forth in claim 15.

Claim 24 depends from claim 15, and thus would not have been rendered obvious by Mizutani in view of Wakimoto, and further in view of JP 10-036487. The rejection is moot with respect to canceled claim 37. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

IV. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 15, 17 and 19-26 are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Holly N. Moore
Registration No. 50,212

JAO:HNH/fpw

Attachments:

Request for Continued Examination (RCE)
Form PTO-1449 (filed July 16, 2004)

Date: October 13, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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